

1. A method of developing biologic material, comprising the steps of:
2 injecting or surgically implanting non-bone cells or tissue into one or more bones
of a vertebrate; and
4 benefiting from the non-bone cells or tissue after receiving nourishment from the
blood vessels within the bone.
2. The method of claim 1, wherein the step of injecting or surgically
2 implanting the non-bone cells or tissue includes the transfer of individual cells or small
clumps of cells.
3. The method of claim 1, further including the step of injecting or surgically
2 implanting an extracellular matrix scaffold in conjunction with the non-bone cells or
tissue.
4. The method of claim 3, wherein the extracellular matrix is synthetic,
2 resorbing, or derived from biologic sources.
5. The method of claim 1, including the step of injecting or surgically
2 implanting islet cells.
6. The method of claim 5, including the step of injecting or surgically
2 implanting the extracellular matrix that supports the islet cells.
7. The method of claim 5, including the step of injecting or surgically
2 implanting the islet cells into the vertebrae of a recipient.
8. The method of claim 5, wherein the islet cells are harvested from the
2 pancreas of a human or animal donor.

9. The method of claim 8, wherein the human donor is the sibling of a
2 recipient.

10. The method of claim 8, wherein the islet cells are harvested from a fetus in
2 the form of stem cells.

11. The method of claim 5, including the step of injecting or surgically
2 implanting the islet cells into the pelvis of a recipient.

12. The method of claim 1, including the step of injecting or surgically
2 implanting one or more additional factors, such as tissue growth factors, factors that
promote vessel growth, differentiation factors, tissue culture, media, immunosuppressive
4 medications, or antibiotics.

13. The method of claim 1, including the step of placing non-bone cells or
2 tissue into a porous bag for the purpose of implantation.

14. The method of claim 13, wherein the bag includes pores dimensioned to
2 inhibit the ingress or egress of all cells.

15. The method of claim 13, wherein the bag includes pores dimensioned to
2 allow migration of red blood cells in and out of the transferred tissue, while prohibiting
migration of the transferred cells.

16. The method of claim 13, wherein the bag includes pores dimensioned to
2 allow blood vessels to grow in to the transferred cells or tissue.

17. The method of claim 12, wherein the additional factors are contained in a
2 separate, semi-porous enclosure adjacent to the transferred cells or tissue.

18. The method of claim 12, including an additional factor which is released
2 from an implanted hydrogel or other resorbable material.

19. The method of claim 12, wherein the additional factors include Vascular
2 Endothelial Growth Factor (VEGF) to stimulate vessels to grow into the transferred cells
or tissue.

20. The method of claim 1, including the steps of:
2 removing a portion of a cortical bone layer to create a window into the cancellous
region;
4 implanting the cells or tissue into the bone through the window; and
closing the window with a plate and screws or other seal.

21. The method of claim 20, wherein the window is created in a long bone.

22. The method of claim 20, wherein the window is created in a tibia or
2 femur.